

# Status of Barn Swallow *Hirundo rustica* in south-west Madagascar

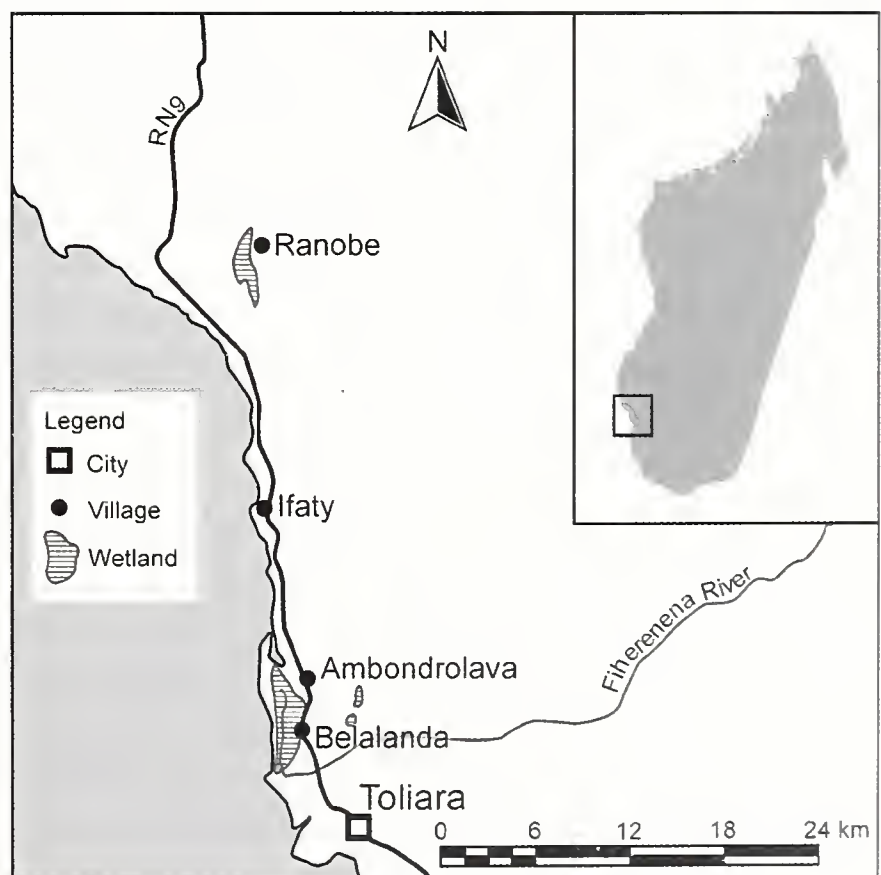
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**Résumé.** L'avifaune de Madagascar est riche en espèces endémiques mais pauvre en espèces migratrices et seuls quatre passereaux paléarctiques sont connus de l'île. Parmi ces espèces, l'Hirondelle rustique *Hirundo rustica* est la plus commune bien qu'elle soit considérée par plusieurs auteurs comme étant une espèce migratrice irrégulière ou erratique. Nous présentons plusieurs observations d'Hirondelles rustiques dans le sud-ouest de Madagascar que nous avons réalisées de janvier à mars 2010 qui nous permettent d'élucider le statut de l'espèce dans la région. Nous avons observé des hirondelles perchées dans les marais du lac Ranobe à quatre reprises entre le 29 janvier et le 20 février 2010, mais aucune hirondelle n'était présente sur le site le 19 mars 2010. Nous avons également réalisé six autres observations d'Hirondelles rustiques dans d'autres sites de la région (à Ranobe et près des complexes humides de Belalanda et d'Ambondrolava) au cours de cette période. Des enquêtes menées auprès des villageois riverains du marais du lac Ranobe indiquent que l'espèce n'apparaît que pendant la saison des pluies mais depuis longtemps. Nous proposons donc de considérer que l'Hirondelle rustique n'est pas une espèce migratrice erratique mais plutôt une espèce migratrice régulière dans la région et localisée aux zones humides. Nos observations soulignent l'importance régionale du lac Ranobe pour la conservation des oiseaux.

Madagascar is well known for its low avian species richness but extraordinary rates of endemism, with 51% of the 209 breeding species being endemic to the island (a figure unparalleled in any major landmass; Goodman & Hawkins 2008). A second noteworthy pattern in the avifauna is the relatively low number of migratory species; a recent review (Goodman & Hawkins 2008) lists just 32 species of either regular or accidental Palearctic migrants, dominated by the Charadriidae (five species), Scolopacidae (16) and Sternidae (four). Only two terrestrial birds, Eleonora's Falcon *Falco eleonora* and Sooty Falcon *F. concolor*, are known to be regular visitors, while only four migratory Palearctic passerines have been recorded—Barn Swallow *Hirundo rustica*, Common Sand Martin *Riparia riparia*, Golden Oriole *Oriolus oriolus* and, most recently, Northern Wheatear *Oenanthe oenanthe* (Koenig 2009). The latter three are clearly rare vagrants; this note concerns the status of Barn Swallow, suggesting that it may be less scarce than previously thought.

Barn Swallows in southern Africa are abundant austral summer visitors, breeding mainly in Europe and Russia (Hockey *et al.* 2005); a similar origin is likely for birds in Madagascar. Although the most regularly recorded of the migratory Palearctic passerines, its status on Madagascar remains unclear, and most authors consider it to

be a vagrant or irregular migrant (Langrand 1990, Morris & Hawkins 1998, Sinclair & Langrand 1998). Although records are available throughout the country, e.g. the north-east (Langrand 1990) and south-east (Goodman *et al.* 1997), they appear to be concentrated in the south-west (Morris & Hawkins 1998; R. Safford pers. comm.): six of the eight records mentioned by Langrand &



**Figure 1.** Map of the region showing locations mentioned in the text.

Carte de la région indiquant les localités mentionnées dans le texte.

Sinclair (1994) come from this region, of which four are from around Toliara and Ifaty (see Fig. 1). All but one of these is from October–March. Further records from the region include a flock of 20 at Lac Ranobe in November 1994 (Anon. 1995). Here we present several observations of Barn Swallows from Atsimo-Andrefana (Toliara), south-west Madagascar, and supplement these with local ethno-ornithological data, in an attempt to clarify the status of the species in the region.

### Barn Swallow observations in 2010

On 29 January 2010 at 18.48 hrs, while returning from field work in the forests east of Lac Ranobe (Fig. 1), we observed a flock of *c.*300 hirundines gathering over the reedbeds on the east side of the lake. The flock was composed primarily of Barn Swallows, with a few Mascarene Martins *Phedina borbonica* also present. The birds flew over the reedbeds in a coherent flock at a height of *c.*50 m for several minutes, and were augmented by small groups of birds arriving from the south and east. At 19.02 hrs (soon after sunset), the flock rapidly descended into the reeds, so that all birds disappeared within a matter of seconds. The roost was *c.*150 m north-west of the village of Ranobe Anivo (23°01'02"S 43°36'29"E), in reedbeds dominated by *Typha angustifolia* (known locally as *vondro*) and *Phragmites mauritianus* (*bararata*). We observed the roosting of this flock on three further occasions, on 2, 6 and 20 February, during which we estimated the flock to comprise 300–800 individuals, their number increasing with time. None was present when we revisited the site on 19 March. The birds were identified as Barn Swallows based on their unstreaked white underparts and underwings, chestnut throat patches and, when seen flying low over the ground, the blue iridescence to the back and wings.

We also recorded small groups of Barn Swallows or singles away from the roost during the same period as follows.

During a total of eight road trips along the Route Nationale 9 (RN9) between the wetland complexes of Belalanda and Ambondrolava (Fig. 1), we recorded a single on 17 January 2010, three separate individuals on 19 January, and one on 10 March. All birds were foraging around or near the edges of wetlands adjacent to the road.

On 28 January, at a forest site *c.*2 km east of the roost at Lac Ranobe (23°00'54"S 43°37'22"E), we observed four Barn Swallows in a flock with seven Mascarene Martins; they flew west over the forest at 17.32 hrs, and we therefore presume them to have been heading towards the lake roost.

On 22 March at a site *c.*400 m west of Lac Ranobe (23°00'54"S 43°35'58"E), we observed a flock of three Barn Swallows flying west.

On 2 April, LDJ observed *c.*15 Barn Swallows foraging low over sparsely vegetated sand dunes adjacent to the brackish lake complex of Belalanda.

### Local knowledge of the swallows' presence

We supplemented our observational data by interviewing seven villagers (in two groups) from Ranobe Anivo (on 19 March 2010) and two villagers from Ankilibodida, *c.*1 km south of Ranobe Anivo on the east side of the lake (on 30 January 2010). We concentrated our interviews on older members of the community, presenting them with illustrations from field guides and descriptions of the species' roosting behaviour using local interpreters. All interviewees knew the bird, which is known locally as *kely befory* (= little [bird] with big backside), and were able to accurately describe its behaviour both at and away from the roost. All stated that the birds are only present during the rainy season (which typically lasts from November to March: Seddon *et al.* 2000), with one suggesting that the species responds rapidly to rains, often arriving immediately following storms. While most interviewees agreed that the roost was always in the same location (in the tallest, densest stand of *Phragmites mauritianus*), one claimed that the birds varied the location of the roost on a near-daily basis, and that the flock would sometimes divide into two or more groups to roost. All interviewees stated that the roost had been present for as long as they could remember, and that it had always been of a similar size, suggesting that it does not represent a recent increase in the numbers of migratory birds.

On 19 March 2010, when no hirundines were present at the roost, we questioned villagers as to when the flock had disappeared. One interviewee reported that the flock had left *c.*1 week previously, while the others agreed that the time of departure had in fact been three days earlier. The latter date

corresponds to the end of four days of heavy rain associated with tropical depression Hubert, which passed east of the region on 13–14 March (Météo France 2010), and also corresponds to the time of departure of the majority of Sooty Falcons from the site. These raptors had been abundant in deforested areas west of the lake in previous weeks, foraging in loose flocks of up to 25 birds in the evenings and following rain, but few individuals remained beyond 16 March.

Having undertaken several (unrelated) in-depth, semi-structured interviews concerning the hunting of forest and lake birds with men from both villages, we have a high degree of confidence in the reliability of local ethno-ornithological knowledge. All men interviewed, for example, stated that the introduced Common Myna *Acridotheres tristis* had been present in the village only for *c.* 10–15 years (CJG unpubl. data), which corresponds to scientific knowledge from elsewhere (see Sueur 1996).

## Conclusion

Our observations, coupled with local knowledge of the birds and several historical records from the south-west region, lead us to suggest that the paucity of records of Barn Swallows in Madagascar is probably an artefact resulting from the relative lack of observers rather than the irregularity of the species (as suggested for migrants in general by Hawkins & Goodman 2003). We therefore suggest that the species is a regular, if highly localised, migrant concentrated around wetlands in the south-west. Our observations of Barn Swallows around wetland complexes south of Ranobe, and lack of records from areas away from wetlands, suggest that the species may be tied to such habitats within the region, whether for foraging or roosting or both. We did not have the opportunity to search for roosts at either Belalanda or Ambondrolava, and therefore do not know whether the birds we observed at these sites dispersed daily from the roost at Ranobe (*c.* 30 km north of Ambondrolava), or whether they were members of separate roosts. If Barn Swallows are indeed tied to wetlands within the region, the lack of records from the much larger and more bird-rich wetlands in the west of the country may be considered surprising. Several authors (Young & Safford 1995, Tingay & Gilbert 1999, Willard &

Goodman 2002, Raherilalao & Wilmé 2008) have published bird inventories from such sites without recording Barn Swallows, but such surveys have generally been during the austral winter when migrants are absent, and problems of access during the rainy season hinder ornithological research during such periods. Surveys of these wetlands during appropriate periods may yield additional Barn Swallow roosts.

Although widespread migratory species assume lower conservation importance than the country's endemics, the finding of Madagascar's only known roost of Barn Swallows further highlights the regional conservation importance of Lac Ranobe and its reedbeds within the context of the sub-arid south of the country. Gardner *et al.* (2009a) recorded 32 species of wetland birds from the site, of which nine (Little Bittern *Ixobrychus minutus*, Black-crowned Night Heron *Nycticorax nycticorax*, Squacco Heron *Ardeola ralloides*, Black Heron *Egretta ardesiaca*, Great Egret *E. alba*, Purple Heron *Ardea purpurea*, Hamerkop *Scopus umbretta*, African Openbill *Anastomus lamelligerus* and Purple Swamphen *Porphyrio porphyrio*) have very restricted or local distributions in the south. The wetlands currently receive no formal protection at the national level, although WWF is leading efforts to expand the limits of the PK32-Ranobe temporary protected area to include the Ranobe wetlands as well as several other key habitats (see Gardner *et al.* 2009b) as part of the country's ambitious tripling of the protected area system (known as the Durban Vision: Norris 2006). We believe the existence of Madagascar's only known roost of Barn Swallows adds further scientific justification to the expansion of the protected area limits to include Lac Ranobe before definitive protected area status is granted.

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